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**Patent and Trademark Office**

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A-S

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/465,006 12/16/99 HECKMEIER

M MERCK-2073

IM62/1025  
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EXAMINER

KELLY, C

ART UNIT

PAPER NUMBER

1756

DATE MAILED:

10/25/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/465,006

Applicant(s)

Heckmeier et al.

Examiner

Kelly, C.H.

Group Art Unit

1756



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-10 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-10 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1756

Claim 8 provides for the use of liquid crystal medium, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 8 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claims 4 and 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase, "at least one of claims 1 to 6" and "at least one of claims 1 to 7" is indefinite. Applicant may not refer to the claims in a manner which is not alternative. The correct manner would be "any one of claims 1 to 6 (or 7)".

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1756

Claims 1 and 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinose et al., U.S. pat. No. 6,066,268.

Ichinose discloses compounds which are encompassed in liquid crystal compositions which are representative of compounds like applicant claims in instant claim 1, formula I, instant formula II and instant formula III. The reference composition must have included a 2,3 difluorophenyl with an alkyl terminal. See reference claim 1. The reference shows a compound have a 3, 4-difluorophenyl in column 4 and claim 12. The reference composition has further optional compounds which are of the same formula as applicant claims in instant formula III. The difference between the reference and the application is that the reference does not show by way of example a medium having the compounds of the formulas as claimed. However, the reference clearly teaches that compounds of instant claim 1, formula II are to be combined with a 3,4-difluorophenyl compound. Claim 12 of the reference teaches the combination. Although there is no specific example of the instant invention, it would have been obvious to one of ordinary skill in the art to make the claimed invention because the reference teaches combining compounds having 2,3 difluorophenyl components with compounds have 3,4-difluorophenyl components to make effective liquid crystal compounds. The reference composition is to be used in an active matrix display system. The term active matrix display includes the different types of active matrix displays.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirschmann et al., U.S. pat. No. 6,056,894.

Art Unit: 1756

Hirschmann discloses liquid crystal compositions which include a number of compounds of different formulas. Hirschmann discloses compounds which are of the same formulas as applicant instantly claims. The compounds of the formula which represents the compound of instant formula I is found in reference columns 6-8. The compounds of the formula which represents instant compound of formula II is found in reference column 24 as component C. Other compounds which are components of the reference composition are found in reference columns 4, 12 and 14. The difference between the reference and the application is that the reference does not show by way of example the combination of the specific compounds of the instant formulas I, II and III. The reference offers guidance to make compounds of the instant invention. The reference provides a composition which must contain what applicant refers to as the optional component. The reference proposes adding a 2,3 difluorophenyl compound to a bisalkenyl compound. A 3, 4-difluorophenyl or 3, 4, 5-trifluorophenyl compound may be used in the combination as well. It would have been obvious to one of ordinary skill in the art to make the claimed invention because the reference teaches to combine compounds having the same formulas as applicant instantly claimed to make effective liquid crystal compositions.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kelly whose telephone number is (703) 308-0449. The examiner can normally be reached on Mondays through Thursdays.

Application/Control Number: 09/465006

Page 5

Art Unit: 1756

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff, can be reached on (703) 308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

C.H. Kelly  
Art Unit 1756  
CH Kelly